UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 23, 2008

Ms. Lori Podolak
Product Licensing Specialist
Regulatory Affairs Department
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

SUBJECT: CERTIFICATE OF COMPLIANCE NO. 9035 FOR THE MODEL NO. 680-OP PACKAGE

Dear Ms. Podolak:

As requested by your application dated January 18, 2008, supplemented February 8, and April 3, 2008, enclosed is Certificate of Compliance No. 9035, Revision No. 21, for the Model No. 680-OP package. Changes made to the enclosed certificate are indicated by vertical lines in the margin. The staff's Safety Evaluation Report is also enclosed.

Those on the attached list have been registered as users of the package under the general license provisions of 10 CFR 71.17 or 49 CFR 173.471. The approval constitutes authority to use the package for shipment of radioactive material and for the package to be shipped in accordance with the provisions of 49 CFR 173.471.

If you have any questions regarding this certificate, please contact me or Jessica Glenny of my staff at (301) 492-3285.

Sincerely,

Meraj Rahimi, Acting Chief
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9035
TAC No. L24176

Enclosures: 1. Certificate of Compliance
No. 9035, Rev. No. 21
2. Safety Evaluation Report
3. Registered Users

cc w/encls 1 & 2: R. Boyle, Department of Transportation
J. Shuler, Department of Energy
Registered Users

NRC FORM 618
(8-2000)
10 CFR 71

U.S. NUCLEAR REGULATORY COMMISSION

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES

a CERTIFICATE NUMBER	b REVISION NUMBER	c DOCKET NUMBER	d PACKAGE IDENTIFICATION NUMBER	PAGE		PAGES
9035	21	71-9035	USA/9035/B(U)-96	1	OF	3

2. PREAMBLE

a. This certificate is issued to certify that the package (packaging and contents) described in Item 5 below meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."

b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported

3. THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION

a. ISSUED TO *(Name and Address)*

QSA Global Inc.
40 North Avenue
Burlington, MA 01803

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

AEA Technology/QSA, Inc., application dated August 29, 2005.

4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

5.

(a) Packaging

(1) Model No.: 680-OP

(2) Description

The Model No. 680-OP consists of a gamma ray projector within a protective steel container. The protective container is of welded steel construction and is approximately 32 inches long, 19 inches wide, and 18-1/2 inches high. Polyurethane foam and wood inserts locate the Model 680 series projectors in the center of the container and provide impact protection.

The 680 series projectors include the Model Nos. 680, 680E, 680A, 680AE, 680B and 680BE. The primary components of the projector consist of an outer steel shell, internal bracing, polyurethane foam, depleted uranium shield, and an "S" tube. The radioactive contents are securely positioned in the "S" tube by a source cable locking device and shipping plug. A 1/4-inch thick steel shipping plate is bolted over the source locking mechanism for additional protection during transport. Tamper-proof seals are provided on the outer steel container. The dimensions of the projector are approximately 21 inches long, 14-5/8 inches wide, and 11-13/16 inches high. The maximum weight of the package is 615 pounds, and the maximum weight of the projector is 465 pounds.

(3) Drawings

The packaging is constructed in accordance with QSA Global Inc., Drawing No. R68090, Sheets 1-7, Rev. H, and R680-OP, Sheets 1-7, Rev. K.

5.(b) Contents

(1) Type and form of material:

Cobalt-60 as sealed sources which meet the requirements of special form radioactive material.

(2) Maximum quantity of material per package:

110 curies (4.1 TBq) (output)

Output curies are determined by measuring the source output at 1 meter and expressing its activity in curies derived from the following: 1.30 R/h-Ci cobalt-60 at 1 meter (Ref: American National Standards Institute, N432-1980, "Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography").

6. The source shall be secured in the shielded position of the packaging by the source assembly lock; lock cap and safety plug assembly. The source assembly lock, lock cap and safety plug assembly must be fabricated of materials capable of resisting a 1475°F fire environment for one half hour and maintaining their positioning function. The locking ball of the source assembly must engage the locking device. The flexible cable of the source assembly and shipping plug must be of sufficient length and diameter to provide positive positioning of the source in the shielded position.

7. The nameplates shall be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.

8. In addition to the requirements of Subpart G of 10 CFR Part 71:

(a) The package must meet the Acceptance Tests and Maintenance Program of Section 8 of the application; and

(b) Each package shall be operated and prepared for shipment in accordance with Section 7 of the application.

9. Revision No. 20 of this certificate may be used until April 30, 2009.

10. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.

11. Expiration date: June 30, 2010.

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES

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REFERENCES

AEA Technology/QSA, Inc., application dated August 29, 2005.

Supplements dated: October 25, 2005; February 20, August 1, August 11, and August 15, 2006; and January 18, February 8, and April 3, 2008.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Meraj Rahimi, Acting Chief
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Date: April 23, 2008.

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NUCLEAR REGULATORY COMMISSION
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SAFETY EVALUATION REPORT
Docket No. 71-9035
Model No. 680-OP
Certificate of Compliance No. 9035
Revision No. 21

SUMMARY

By application dated January 18, 2008, supplemented February 8, and April 3, 2008, QSA Global, Inc. (QSA) submitted an amendment request for Certificate of Compliance (CoC) No. 9035 for the Model No. 680-OP package. QSA requested the amendment to further correct and detail information referenced in the CoC drawings for the Model No. 680-OP.

EVALUATION.

QSA requested minor design changes, including the addition of screws, nails, gaskets, spacers, welds and construction aids to the Model No. 680-OP package. Three alternate configurations for the skid feet, included in Drawing No. R680-OP, Revision K, Sheet 5 of 7, were proposed by QSA.

Among the changes, QSA clarified the dimensions and positions of wood inserts as construction aids in Drawing No. R680-OP, Revision K, Sheet 4 of 7. The possible positions of the lid tabs supporting the latches used to close the overpack box were clarified in Drawing No. R680-OP, Revision K, Sheet 5 of 7.

QSA clarified that the Model No. 680-OP will be fabricated according to American Welding Society (AWS) code D.1.3, and inspected by welders qualified to American Society for Non-destructive Testing (ASTN) SNT-TC-1 A or equivalent requirements. This clarification was included in Drawing No. R680-OP, Revision K, Sheet 2 of 7, as Note 10.

CONCLUSION

The NRC staff reviewed the amendment request for the Model No. 680-OP package and concluded that the requested design changes have been adequately described and do not affect the ability of the package to meet the requirements of 10 CFR Part 71. The CoC has been revised to reflect the changes requested by QSA.

Issued with Certificate of Compliance No. 9035, Revision No. 21
on April 23, 2008.